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| 1 | US 20050141545 A1 | 20050630 | 40 | Performance of a wireless communication system | 370/445 |
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| | Current XRef | Inventor |
|-----------|-------------------------|--------------------------------|
| 1 | | Fein, Yaron et al. |
| 2 | | Yee, Mong Suan |
| 3 | 370/468 | Kim, So-Hyun et al. |
| 4 | | Oh, Hyun-Seck et al. |
| 5 | | Tehrani, Ardavan M. et al. |
| 6 | | Fujii, Masaaki |
| 7 | 455/193.1 | Kogawa, Tsuyoshi et al. |
| 8 | 370/335 | Sung, Sang-Hoon et al. |
| 9 | | Hottinen, Ari |
| 10 | | Kadous, Tamer |
| 11 | 370/343 | Barreto, Andre Noll |
| 12 | | Walton, Jay R. et al. |
| 13 | | Alexander, Paul Dean et al. |
| 14 | | Ketchum, John W. et al. |

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|----|-------------------|------------|-------|---|------------|
| 15 | US 20040228272 A1 | 20041118 | 29 | OFDM receiving method and OFDM receiving apparatus | 370/210 |
| 16 | US 20040213187 A1 | 20041028 | 40 | Transmit diversity system method and computer program product | 370/335 |
| 17 | US 20040198265 A1 | 20041007 | 33 | Method and apparatus for signal decoding in a diversity reception system with maximum ratio combining | 455/118 |
| 18 | US 20040190598 A1 | 20040930 | 28 | Multicarrier CDMA transmission system and transmission method | 375/141 |
| 19 | US 20040178954 A1 | 20040916 | 15 | Method and apparatus for multi-antenna transmission | 342/383 |
| 20 | US 20040156309 A1 | 20040812 | 19 | Novel receiver architecture for pilot based OFDM systems | 370/208 |
| 21 | US 20040141548 A1 | 20040722 | 31 | Software adaptable high performance multicarrier transmission protocol | 375/146 |
| 22 | US 20040131011 A1 | 20040708 | 21 | Transmission signals, method and apparatus | 370/210 |
| 23 | US 20040121827 A1 | 20040624 | 80 | Receiving apparatus, transmitting apparatus, and reception method | 455/575.7 |
| 24 | US 20040114675 A1 | 20040617 | 32 | OFDM pilot tone tracking for wireless LAN | 375/149 |
| 25 | US 20040114506 A1 | 20040617 | 28 | Transmitting and receiving method for reducing distortion caused by a time-varying channel in an orthogonal frequency division multiplex system | 370/208 |
| 26 | US 20040100897 A1 | 20040527 | 25 | Carrier interferometry coding with applications to cellular and local area networks | 370/206 |
| 27 | US 20040086027 A1 | 20040506 | 42 | Orthogonal superposition coding for direct-sequence communications | 375/146 |
| 28 | US 20040071104 A1 | 20040415 | 57 | Multi-mode method and apparatus for performing digital modulation and demodulation | 370/320 |
| 29 | US 20040047405 A1 | 20040311 | 46 | Flexible method and apparatus for performing digital modulation and demodulation | 375/219 |
| 30 | US 20040008614 A1 | 20040115 | 18 | Signal selection systems | 370/203 |
| 31 | US 20040001554 A1 | 20040101 | 21 | Antenna signal processing systems | 375/260 |

| | Current XRef | Inventor |
|-----------|---------------------------------|-------------------------------|
| 15 | 370/428 | Hasegawa, Tsuyoshi et al. |
| 16 | | Fujil, Masaaki |
| 17 | 455/115.1 ; 455/135 | Wallace, Bradley A. et al. |
| 18 | | Seki, Hiroyuki et al. |
| 19 | | Vook, Frederick W. et al. |
| 20 | | Chadha, Kanu et al. |
| 21 | 375/260 | Shattil, Steve J. |
| 22 | 370/208 | Sandell, Magnus et al. |
| 23 | 455/121 | Murakami, Yutaka et al. |
| 24 | 375/260; 375/327 | Crawford, James A. |
| 25 | 370/431 | Chang, Kyung-Hi et al. |
| 26 | | Shattil, Steve J. |
| 27 | 370/208; 375/147 | Shattil, Steve J. |
| 28 | 370/208; 370/338; 370/342 | Boesel, Robert W. et al. |
| 29 | | Boesel, Robert W. et al. |
| 30 | 370/343 | Matsuoka, Hidehiro et al. |
| 31 | | Sun, Yong et al. |

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|----|-------------------|------------|-------|--|------------|
| 32 | US 20030235255 A1 | 20031225 | 24 | Signal processing with channel eigenmode decomposition and channel inversion for MIMO systems | 375/285 |
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| 34 | US 20030156570 A1 | 20030821 | 39 | Method for frequency division duplex communications | 370/347 |
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| 43 | US 20030048856 A1 | 20030313 | 27 | Method and apparatus for processing data for transmission in a multi-channel communication system using selective channel inversion | 375/260 |
| 44 | US 20030043887 A1 | 20030306 | 29 | Communication system and methods of estimating channel impulse responses therein | 375/144 |
| 45 | US 20030043732 A1 | 20030306 | 31 | Method and apparatus for processing data for transmission in a multi-channel communication system using selective channel transmission | 370/208 |

| | Current XRef | Inventor |
|-----------|---------------------------------|-----------------------------|
| 32 | | Ketchum, John W. et al. |
| 33 | 375/267; 375/299; 375/347 | Kadous, Tamer |
| 34 | 370/208 | Alamouti, Siavash et al. |
| 35 | 455/450 | Walton, Jay R. et al. |
| 36 | | Kim, Younggyun et al. |
| 37 | | Maeda, Noriyuki et al. |
| 38 | | Walton, Jay R. et al. |
| 39 | 375/346 | Ketchum, John W. et al. |
| 40 | 455/226.1 | Webster, Mark A. et al. |
| 41 | 370/329 | Walton, Jay R. et al. |
| 42 | | Crawford, James A. |
| 43 | | Ketchum, John W. et al. |
| 44 | | Hudson, John E. |
| 45 | 370/203; 370/329 | Walton, Jay R. et al. |

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|----|-------------------|------------|-------|--|------------|
| 46 | US 20030035491 A1 | 20030220 | 35 | Method and apparatus for processing data in a multiple-input multiple-output (MIMO) communication system utilizing channel state information | 375/267 |
| 47 | US 20030003880 A1 | 20030102 | 33 | Method and apparatus for utilizing channel state information in a wireless communication system | 455/92 |
| 48 | US 20020176485 A1 | 20021128 | 21 | Multi-cast communication system and method of estimating channel impulse responses therein | 375/144 |
| 49 | US 20020176483 A1 | 20021128 | 32 | OFDM pilot tone tracking for wireless LAN | 375/137 |
| 50 | US 20020159533 A1 | 20021031 | 34 | OFDM pilot tone tracking for wireless lan | 375/260 |
| 51 | US 20020150168 A1 | 20021017 | 16 | Optimum phase error metric for OFDM pilot tone tracking in wireless LAN | 375/260 |
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| 55 | US 20020027875 A1 | 20020307 | 40 | OFDM transmitting and receiving apparatus and OFDM transmitting and receiving method | 370/203 |
| 56 | US 20010050926 A1 | 20011213 | 60 | In-band on-channel digital broadcasting method and system | 370/529 |
| 57 | US 20010024475 A1 | 20010927 | 45 | AM- COMPATIBLE DIGITAL BROADCASTING METHOD AND SYSTEM | 375/270 |
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|-----------|-------------------------|------------------------------|
| 46 | 375/260; 455/132 | Walton, Jay R. et al. |
| 47 | | Ling, Fuyun et al. |
| 48 | 375/260; 375/340 | Hudson, John E. |
| 49 | 370/208; 375/376 | Crawford, James A. |
| 50 | | Crawford, James A. |
| 51 | 375/262; 375/341 | Crawford, James A. |
| 52 | 375/146; 375/148 | Baum, Kevin et al. |
| 53 | | Agee, Brian G. et al. |
| 54 | 370/482 | Bohnke, Ralf et al. |
| 55 | 370/260 | Sudo, Hiroaki et al. |
| 56 | 370/487; 375/347 | Kumar, Derek D. |
| 57 | | KUMAR, DEREK D. |
| 58 | 375/267 | Vook; Frederick W. et al. |

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| 59 | US 6853629 B2 | 20050208 | 35 | Method for frequency division duplex communications | 370/330 |
| 60 | US 6842487 B1 | 20050111 | 18 | Cyclic delay diversity for mitigating intersymbol interference in OFDM systems | 375/260 |
| 61 | US 6834043 B1 | 20041221 | 26 | Method and device for exploiting transmit diversity in time varying wireless communication systems | 370/310 |
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| 63 | US 6801580 B2 | 20041005 | 20 | Ordered successive interference cancellation receiver processing for multipath channels | 375/267 |
| 64 | US 6785520 B2 | 20040831 | 24 | System and method for antenna diversity using equal power joint maximal ratio combining | 455/101 |
| 65 | US 6785513 B1 | 20040831 | 35 | Method and system for clustered wireless networks | 455/63.1 |

| | Current XRef | Inventor |
|-----------|---|---------------------------|
| 59 | 370/203; 370/206; 370/281; 370/321; 370/329; 370/336; 370/337; 370/343; 370/344; 375/267; 375/299; 375/347 | Alamouti; Siavash et al. |
| 60 | 455/10 | Larsson; Peter |
| 61 | 370/203; 370/335; 370/342; 375/295; 375/347; 455/65; 455/69 | Vook; Frederick W. et al. |
| 62 | 375/347 | Thomas; Timothy A. et al. |
| 63 | 370/208; 375/144; 375/347 | Kadous; Tamer |
| 64 | 375/299; 375/347; 455/272; 455/276.1; 455/334; 455/522; 455/562.1 | Sugar; Gary L. et al. |
| 65 | 455/11.1 | Sivaprakasam; Srinivas |

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| 66 | US 6785341 B2 | 20040831 | 33 | Method and apparatus for processing data in a multiple-input multiple-output (MIMO) communication system utilizing channel state information | 375/267 |
| 67 | US 6765969 B1 | 20040720 | 28 | Method and device for multi-user channel estimation | 375/259 |
| 68 | US 6760388 B2 | 20040706 | 21 | Time-domain transmit and receive processing with channel eigen-mode decomposition for MIMO systems | 375/295 |
| 69 | US 6751187 B2 | 20040615 | 29 | Method and apparatus for processing data for transmission in a multi-channel communication system using selective channel transmission | 370/210 |
| 70 | US 6747945 B2 | 20040608 | 39 | OFDM transmitting and receiving apparatus and OFDM transmitting and receiving method | 370/203 |
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| 72 | US 6647078 B1 | 20031111 | 18 | Method and device for multi-user frequency-domain channel estimation based on gradient optimization techniques | 375/349 |
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| | Current XRef | Inventor |
|-----------|--|------------------------------|
| 66 | 375/346 | Walton; Jay R. et al. |
| 67 | 375/295; 375/316 | Vook; Frederick W. et al. |
| 68 | | Ketchum; John W. et al. |
| 69 | 370/334; 370/437; 375/346; 455/522 | Walton; Jay R. et al. |
| 70 | 370/210; 370/481; 375/260; 375/265 | Sudo; Hiroaki et al. |
| 71 | 455/114.2 ; 455/129; 455/63.1; 455/63.4; 455/67.11 ; 455/67.16 ; 455/69 | Sugar; Gary L. et al. |
| 72 | 375/285; 375/346; 455/278.1 ; 455/63.1 | Thomas; Timothy A. et al. |
| 73 | 370/206; 370/210; 375/147; 375/260; 375/349 | Crawford; James A. |

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| 74 | US 6621851 B1 | 20030916 | 180 | Priority messaging method for a discrete multitone spread spectrum communications system | 375/130 |
| 75 | US 6560209 B1 | 20030506 | 38 | Method for frequency division duplex communications | 370/330 |
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| 77 | US 6549561 B2 | 20030415 | 32 | OFDM pilot tone tracking for wireless LAN | 375/137 |
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| 79 | US 6504506 B1 | 20030107 | 15 | Method and device for fixed in time adaptive antenna combining weights | 342/383 |
| 80 | US 6480522 B1 | 20021112 | 179 | Method of polling second stations for functional quality and maintenance data in a discrete multitone spread spectrum communications system | 375/130 |
| 81 | US 6362781 B1 | 20020326 | 23 | Method and device for adaptive antenna combining weights | 342/383 |
| 82 | US 6359923 B1 | 20020319 | 244 | Highly bandwidth efficient communications | 375/130 |
| 83 | US 6351500 B1 | 20020226 | 44 | AM- compatible digital broadcasting method and system | 375/270 |
| 84 | US 6345036 B1 | 20020205 | 39 | OFDM transmitting/receiving device and method | 370/203 |

| | Current XRef | Inventor |
|-----------|---|--------------------------------|
| 74 | 370/242; 375/135 | Agee; Brian G. et al. |
| 75 | 370/203; 370/206; 370/281; 370/329; 370/336; 370/337 | Alamouti; Siavash et al. |
| 76 | 370/206; 370/210; 375/130; 375/349 | Crawford; James A. |
| 77 | 370/206; 370/210; 375/326; 375/328 | Crawford; James A. |
| 78 | 455/143 | Hunsinger; Billie J. et al. |
| 79 | 342/367 | Thomas; Timothy A. et al. |
| 80 | 370/242; 375/135 | Hoole; Elliott et al. |
| 81 | 342/367 | Thomas; Timothy A. et al. |
| 82 | 370/342; 375/135; 375/136 | Agee; Brian G. et al. |
| 83 | 329/357; 332/170; 375/301; 375/321; 455/109; 455/47 | Kumar; Derek D. |
| 84 | 370/210; 370/481; 375/260; 375/265 | Sudo; Hiroaki et al. |

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| 85 | US 6246698 B1 | 20010612 | 58 | In-band on-channel digital broadcasting method and system | 370/487 |
| 86 | US 6005894 A | 19991221 | 44 | AM-compatible digital broadcasting method and system | 375/270 |
| 87 | US 5949796 A | 19990907 | 59 | In-band on-channel digital broadcasting method and system | 370/529 |
| 88 | US 5933421 A | 19990803 | 37 | Method for frequency division duplex communications | 370/330 |
| 89 | US 5867478 A | 19990202 | 38 | Synchronous coherent orthogonal frequency division multiplexing system, method, software and device | 370/203 |
| 90 | US 5850415 A | 19981215 | 48 | In-band on-channel digital broadcasting | 375/216 |
| 91 | US 5757854 A | 19980526 | 47 | In-band on-channel digital broadcasting | 375/260 |
| 92 | US 5748677 A | 19980505 | 27 | Reference signal communication method and system | 375/285 |
| 93 | US 5465396 A | 19951107 | 48 | In-band on-channel digital broadcasting | 455/61 |

| | Current XRef | Inventor |
|-----------|--|-----------------------------|
| 85 | 370/529; 375/347 | Kumar; Derek D. |
| 86 | 329/357; 332/170; 375/301; 375/321; 455/109; 455/47 | Kumar; Derek D. |
| 87 | 370/487; 375/347 | Kumar; Derek D. |
| 88 | 370/203; 370/281 | Alamouti; Siavash et al. |
| 89 | 370/208; 370/343; 370/480 | Baum; Kevin Lynn et al. |
| 90 | 455/143; 455/74 | Hunsinger; Billie J. et al. |
| 91 | 370/500; 370/527; 375/269; 375/270; 375/285 | Hunsinger; Billie J. et al. |
| 92 | 375/229; 375/260; 375/355; 375/362 | Kumar; Derek D. |
| 93 | 375/232; 375/270; 455/102; 455/143; 455/202; 455/65 | Hunsinger; Billie J. et al. |